

WHAT IS CLAIMED IS:

1. An ink jet recording apparatus for performing image formation on a recording medium by using a recording head having plural discharge ports being arranged to discharge ink from said discharge ports, comprising:

preliminary discharging means for performing preliminary discharges by discharging ink from said discharge ports irrespective of said image formation;

capping means for enabling a cap for capping said plural discharge ports to be in contact with and retract from the discharge port surface of said recording head where said discharge ports are formed; and

selection means for selecting whether said preliminary discharges are performed in the status of having said cap to be in contact with said discharge port surface or in the status of having said cap to be away from said discharge port surface, according to the number of ink discharges by said preliminary discharging means,

wherein said ink discharge number in the status of having said cap to be in contact is made larger than said ink discharge number in the status of having said cap to be away.

2. An ink jet recording head according to
Claim 1, wherein when said preliminary discharges
are performed in the status of having said cap to
be away, said preliminary discharges are performed
5 toward said cap or said preliminary discharges are
performed toward an ink receiving portion other
than said cap.

3. An ink jet recording apparatus according
10 to Claim 1, further comprising suction means for
sucking said ink in said cap by giving negative
pressure in said cap, wherein when said
preliminary discharges are performed in the status
of having said cap to be in contact, said cap is
15 communicated with the air outside, and suction is
also effectuated by said suction means.

4. An ink jet recording apparatus according
to Claim 3, wherein when said suction and said
20 preliminary discharges are performed, said suction
is performed for a designated time in the status
of having the inside of said cap communicated with
the air outside after said preliminary discharges
terminate.

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5. An ink jet recording apparatus according
to Claim 3, wherein when said suction and said

preliminary discharges are performed, said suction is performed for a designated time in the status of having the inside of said cap communicated with the air outside before said preliminary discharges 5 begin.

6. An ink jet recording apparatus according to Claim 3, wherein the discharge frequency in performing said suction and said preliminary 10 discharges is lower than the discharge frequency in performing only said preliminary discharges.

7. An ink jet recording apparatus according to Claim 1, further comprising wiping means for 15 wiping off said ink adhering to said discharge port surface, wherein when a predetermined number of preliminary discharges is executed by said preliminary discharging means, said wiping means wipes off said ink adhering to said discharge port 20 surface.

8. An ink jet recording apparatus for performing image formation on a recording medium by using a recording head having plural discharge 25 ports being arranged to discharge ink from said discharge ports, comprising:

preliminary discharging means for performing

preliminary discharges by discharging ink from said discharge ports irrespective of said image formation;

capping means for enabling a cap for capping 5 said plural discharge ports to be in contact with and retract from the discharge port surface of said recording head where said discharge ports are formed; and

selection means for selecting whether suction 10 by suction means and said preliminary discharges are performed in the status of having said cap to be in contact with said discharge port surface and having the inside of said cap communicated with the air outside, said preliminary discharges are 15 performed in the status of having said cap to be in contact with said discharge port surface, or said preliminary discharges are performed in the status of having the cap to be away from said discharge port surface, according to the number of 20 ink discharges by said preliminary discharging means,

wherein said ink discharge number of said suction and said preliminary discharges being performed in the status of having said cap to be 25 in contact is made larger than said ink discharge number of said preliminary discharges being performed in the status of having said cap to be

in contact, and said ink discharge number of said preliminary discharges being performed in the status of having said cap to be in contact is made larger than said ink discharge number in the 5 status of having said cap to be away.

9. An ink jet recording head according to Claim 8, wherein when said preliminary discharges are performed in the status of having said cap to 10 be away, said preliminary discharges are performed toward said cap or said preliminary discharges are performed toward an ink receiving portion other than said cap.

15 10. An ink jet recording apparatus according to Claim 8, wherein when said suction and said preliminary discharges are performed, said suction is performed for a designated time in the status of having the inside of said cap communicated with 20 the air outside after said preliminary discharges terminate.

11. An ink jet recording apparatus according to Claim 8, wherein when said suction and said 25 preliminary discharges are performed, said suction is performed for a designated time in the status of having the inside of said cap communicated with

the air outside before said preliminary discharges begin.

12. An ink jet recording apparatus according
5 to Claim 8, wherein the discharge frequency in
performing said suction and said preliminary
discharges is lower than the discharge frequency
in performing only said preliminary discharges.

10 13. An ink jet recording apparatus according
to Claim 8, further comprising wiping means for
wiping off said ink adhering to said discharge
port surface, wherein when a predetermined number
of preliminary discharges is executed by said
15 preliminary discharging means, said wiping means
wipes off said ink adhering to said discharge port
surface.

14. An ink jet recording apparatus for
20 performing image formation on a recording medium
by using a recording head having plural discharge
ports being arranged to discharge ink from said
discharge ports, comprising:
preliminary discharging means for performing

25 preliminary discharges by discharging ink from
said discharge ports irrespective of said image
formation;

capping means for enabling a cap for capping said plural discharge ports to be in contact with and retract from the discharge port surface of said recording head where said discharge ports are 5 formed; and

preliminary discharge control means for controlling said preliminary discharging means to selectively perform said plurality of preliminary discharges having different discharge numbers of 10 said ink, said control means controlling said preliminary discharge operations corresponding to the performance of said preliminary discharges in the status of having said cap to be in contact with said discharge port surface or to the 15 performance of said preliminary discharges in the status of having said cap to be away from said discharge port surface, per plurality of said preliminary discharge operations.

20 15. An ink jet recording apparatus according to Claim 14, wherein the ink discharge number of said preliminary discharge operation in the status of having said cap to be in contact with said discharge port surface is made larger than the ink 25 discharge number of said preliminary discharge operation in the status of having said cap to be away from said discharge port surface.